



STRAWBERRY PLANT NAMED 'DRISCOLL CORONATION'

1. BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants 'Marathon' (U.S. Plant Patent No. PP12,817) and '38A237' (unpatented variety) in an ongoing breeding program, and was discovered as a seedling in Kent, England in 1999. The original seedling of the new cultivar was asexually propagated by stolons in a Nursery in Kent, England. Propagules were transplanted to a controlled breeding plot in Monterey, California, where the variety was identified and selected for further evaluation. 'Driscoll Coronation' was subsequently asexually propagated and underwent further testing in Monterey, California for one year. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

1.1 LATIN NAME OF THE GENUS AND SPECIES OF THE PLANT CLAIMED

The variety is botanically identified as *Fragaria x ananassa*.

1.2 VARIETY DENOMINATION

The strawberry variety denomination is 'Driscoll Coronation'.

2. SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Driscoll Coronation.' The variety is botanically identified as *Fragaria x ananassa*. The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1-4.

3. COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Driscoll Coronation' from those known to us are 'Driscoll Camarillo' (U.S. Plant Patent Application Serial No. 10/077,153) and 'Driscoll Jubilee' (U.S. Plant Patent Application Serial No. 10/619,689 filed July 15, 2003). There are several characteristics of the new variety that are different from, or not

possessed by 'Driscoll Camarillo' and 'Driscoll Jubilee.' The new variety is distinguished from 'Driscoll Camarillo' and 'Driscoll Jubilee' by having ~~a whitish internal fruit color~~, a flat habit, a strong leaf glossiness, inflorescence level in relation to the foliage, weak fruit acidity, and medium adherence of fruit to the calyx. The internal fruit color of Driscoll Coronation is whitish. In contrast, the internal fruit color of 'Driscoll Camarillo' and 'Driscoll Jubilee' comprises a white color interspersed in a striped manner among the orange-red or red color described for each variety. Each color described for the internal fruit color of 'Driscoll Camarillo' and 'Driscoll Jubilee' is individually present in the internal fruit tissues.

'Driscoll Coronation' is distinguished from its maternal parent 'Marathon' by its smaller fruit size, lighter internal color, and its fully everbearing habit. 'Driscoll Coronation' is distinguished from its paternal parent '38A237' by its larger average fruit size, paler internal fruit color, and broader fruit shape.

4. BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

Fig. 1 shows the whole the plant.

Fig. 2 shows the upper side of the leaves of the plant

Fig. 3 shows the under side and underside of the flowers.

Fig. 4 shows the fruit in longitudinal cross-section.

Fig. 5 shows a close-up of the fruit.

5. DESCRIPTION OF THE NEW VARIETY

The following detailed description of the new variety is based upon observations taken of plants and fruit grown in Monterey County, California, U.S.A. This description is in accordance with UPOV terminology. Observations of 'Driscoll Coronation, 'Driscoll Camarillo,' and 'Driscoll Jubilee' were taken in side by side comparison in the year 2002. Plants for observation were harvested from a low elevation nursery in Tehama County, California in December 2001, and held in refrigerated storage until planting in Monterey County in March 2002. Plants were grown in raised beds of soil under conditions typical of commercial strawberry production along the central coast of California. Fruits were

harvested twice weekly for yield determination from May to October 2002. Measurements of plant, flower, and fruit characteristics were made in August 2002, approximately 5 months after planting. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. Colors are described and the most similar color designations are provided from the Royal Horticultural Society (RHS) Colour Chart.

5.1 PROPAGATION

The new variety is principally propagated by way of stolons. Although propagation by stolons is presently preferred, other known methods of propagating strawberry plants may be employed.

5.2 CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2, 3 and 4. In the tables, the flowers described are secondary flowers except where indicated. The fruit described is the secondary fruit on five month ~~one-year~~ old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers.

Table 1 provides information on the plant and fruit characteristics of the new variety 'Driscoll Coronation' compared with characteristics of 'Driscoll Camarillo' and 'Driscoll Jubilee.' Table 2 provides additional information of the plant and fruit characteristics of the new variety 'Driscoll Coronation' compared with characteristics of the varieties 'Driscoll Camarillo' and 'Driscoll Jubilee.' Table 3 provides reactions of the new variety to stresses, pests and diseases compared with reactions of the varieties 'Driscoll Camarillo' and 'Driscoll Jubilee.' Table 4 provides isozyme characteristics of the new variety as compared to that of the varieties 'Driscoll Camarillo' and 'Driscoll Jubilee.'

TABLE 1
QUANTITATIVE COMPARISON OF 'DRISCOLL CORONATION',
'DRISCOLL CAMARILLO,' AND
'DRISCOLL JUBILEE'

	'Driscoll Coronation'	'Driscoll Camarillo'	'Driscoll Jubilee'
Plant Characteristics			
Height of plant (cm)	17.0	20.5	18.3
Spread of plant (cm)	33.2	39.4	30.7
Number of crowns	3.7	3.0	3.5
Leaf Characteristics			
Terminal leaflet length (cm)	7.9	8.4	6.9
Terminal leaflet width (cm)	7.4	8.5	6.7
Terminal leaflet length/width ratio	1.07	0.99	1.04
# Teeth/terminal leaflet	24.3	27.0	20.1
Color of upper side	147A dark green	147A dark green	147A dark green
Color of under side	139C light to medium green	147C light green	138B light to medium green
Petiole length (cm)	16.2	16.8	15.8
Petiole color	145A	145A	145A
Bract frequency	25% typically double	67% typically double	42% typically double
Stipule length (cm)	3.3	4.0	3.1
Stipule width (cm)	0.8	1.0	1.0
Flower Characteristics			
Petal length (cm)	0.96	1.13	1.12
Petal width (cm)	0.93	1.29	1.17
Petal length/width Ratio	1.03	0.88	0.96
Flower diameter (cm)	2.55	3.17	2.92
Calyx diameter (cm)	2.51	3.09	2.65
<u>Average</u> Fruiting truss length (cm)	24.2	33.2	27.7
Petal color (cm)	155C	155C	155C
Fruit Characteristics			
Fruit length (cm)	3.9	3.8	3.8
Fruit width (cm)	3.9	3.9	3.4
Fruit length/width Ratio	0.99	0.97	1.10
Average berry weight (g)	20.0	20.7	19.8
External color	45B red	42A red	45A red
Internal color	159D whitish	33A - 155C orange red and	43A - 155B159D

Achene coloration	184A to 8B	white 184B to 4B	red and white 184A to 4A
Yield (g/plant)	850	1200	600

TABLE 2

QUALITATIVE COMPARISON OF 'DRISCOLL CORONATION',
'DRISCOLL CAMARILLO,' AND
'DRISCOLL JUBILEE'

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	'Driscoll Coronation'	'Driscoll Camarillo'	'Driscoll Jubilee'
Plant			
Habit	flat	flat globose	flat globose
Density	open	open	open to medium
Vigor	weak to medium	medium to strong	weak to medium
Leaf			
Shape in cross section	slightly concave to flat	concave	slightly concave to flat
Interveinal blistering	medium	strong	strong
Glossiness	strong	medium to strong	medium
Number of leaflets	three only	three only	three only
Terminal leaflet margin profile	revolute	revolute	revolute
Terminal leaflet shape of base	obtuse	rounded	acute
Terminal leaflet shape of teeth	obtuse	rounded	Rounded
Stipule pubescence	sparse	medium	sparse to medium
Petiole pubescence	very sparse to sparse	sparse	very sparse
Petiole pose of hairs	outwards	upwards to outward	outwards to downwards
Stolon			
Amount	few to medium	medium	Medium
Anthocyanin coloration	medium	medium	Medium
Thickness	medium	thick	thin to medium
Pubescence	medium	medium	sparse to medium
Inflorescence			
Position relative to foliage	level	above	beneath
Diameter of calyx relative to corolla on secondary flowers	smaller to same size	smaller to same size	smaller to same size
Diameter of inner calyx relative to outer on secondary flowers	smaller	same size	smaller

Spacing of petals	touching	overlapping	touching to overlapping
Fruiting Truss			
Attitude at first picking	prostrate	semi-erect to prostrate	semi-erect
Fruit			
Predominant shape	chordate	chordate	conical
Difference in shapes between primary and secondary fruits	slight to moderate	slight to moderate	very slight to slight
Band without achenes	very narrow	very narrow	very narrow
Unevenness of surface	very weak to weak	weak to medium	very weak
Evenness of color	uneven	Even	slightly uneven
Glossiness	strong	Strong	strong
Insertion of achenes	level	below to level	level to above
Insertion of calyx	in a basin	in a basin	in a basin to level
Pose of the calyx segments	spreading	spreading to reflexed	spreading
Size of calyx in relation to fruit on secondary fruit	same size to larger	Smaller	smaller to same size
Adherence of calyx	medium	strong	strong
Firmness of flesh	medium	firm	medium to firm
Evenness of flesh color	even	slightly uneven	slightly uneven
Distribution of flesh color	central	marginal and central	marginal and central
Hollow center size	small to medium	absent to small	absent to small
Sweetness	strong	medium	medium to strong
Texture when tasted	fine	medium	medium
Acidity	weak	Medium	medium
Time of Flowering	medium	medium	medium
Type of Bearing	fully everbearing	fully everbearing	fully everbearing

5.3 REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

REACTIONS TO STRESS PESTS AND DISEASES FOR 'DRISCOLL CORONATION',
'DRISCOLL CAMARILLO,' AND 'DRISCOLL JUBILEE'

	'Driscoll Coronation'	'Driscoll Camarillo'	'Driscoll Jubilee'
Reaction to Stress			
high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately susceptible	moderately resistant	moderately susceptible
Reaction to Pests			
Tetranychus urticae	moderately susceptible	moderately susceptible	moderately susceptible
Lygus hesperus	susceptible	susceptible	susceptible
Reaction To Diseases			
Botrytis fruit rot	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant	moderately susceptible to moderately resistant
Powdery mildew	moderately susceptible	susceptible to highly susceptible	susceptible
Verticillium wilt	moderately susceptible	moderately susceptible	moderately resistant

5.4 ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Driscoll Coronation' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Driscoll Coronation', 'Driscoll Camarillo' and 'Driscoll Jubilee' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucoisomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucomutase ("PGM"). See J. Amer. Soc. Hort. Sci. 106:684-687. Isozyme characterization of the three varieties is presented in Table 4, with the letters representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4

ISOZYME ANALYSIS FOR 'DRISCOLL CORONATION', 'DRISCOLL CAMARILLO,'
AND 'DRISCOLL JUBILEE'

Locus	'Driscoll Camarillo'	'Driscoll Coronation'	'Driscoll Jubilee'
PGI	A2	A3	A1
LAP	B3	B3	B3
PGM	C4	C4	C4

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WHAT IS CLAIMED:

A new and distinct variety of strawberry plant, substantially as shown and described.

ABSTRACT

This invention relates to a new and distinct variety of strawberry named 'Driscoll Coronation.' The variety is similar to the varieties 'Driscoll Camarillo' and 'Driscoll Jubilee.' The variety is distinguished from 'Driscoll Camarillo' and 'Driscoll Jubilee', in particular, by a whitish internal fruit color, a flat habit, a strong leaf glossiness, inflorescence level in relation to the foliage, weak fruit acidity, and medium adherence of fruit to the calyx.